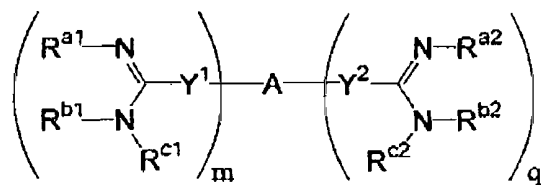


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 Preliminary Amendment  
 Filed February 09, 2004

Docket No.: NBI-105CN

### Listing of Claims:

1. (original) A method of treating or preventing an amyloid-related disease in a subject comprising administering to said subject a therapeutic amount of an amidine compound.
2. (cancelled).
3. (original) The method according to claim 1, wherein said compound is a bis(amidine) compound.
4. (original) The method according to claim 1, wherein said compound is a bis(benzamidine) compound.
5. (currently amended) The method according to claim 1, wherein said compound is selected according to the following Formula, ~~such that amyloid fibril formation or deposition, neurodegeneration, or cellular toxicity is reduced or inhibited:~~



(Formula X)

wherein each  $R^{a1}$ ,  $R^{b1}$ ,  $R^{c1}$ ,  $R^{a2}$ ,  $R^{b2}$ , and  $R^{c2}$  is independently a hydrogen, a Z group, or  $R^{a1}$  and  $R^{b1}$  or  $R^{a2}$  and  $R^{b2}$  are both taken together along with the nitrogen atoms to which they are bound to form a ring structure;

each of  $Y^1$  and  $Y^2$  is independently a direct bond or a linking moiety;

$m$  and  $q$  are each independently an integer selected from zero to five inclusive, such that  $2 \leq m+q \leq 5$ ; and

$A$  is a carrier moiety selected from substituted or unsubstituted aliphatic and aromatic groups, and combinations thereof; such that the  $Y^1$  and  $Y^2$  moieties are bonded to an aromatic group;

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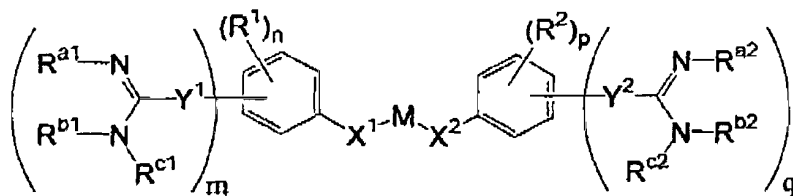
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Z is a substituted or unsubstituted moiety selected from straight or branched alkyl, cycloalkyl, alkoxy, thioalkyl, alkenyl, alkynyl, heterocyclic, carbocyclic, aryl, aryloxy, aralkyl, aryloxyalkyl, arylacetamidoyl, alkylaryl, heteroaralkyl, alkylcarbonyl, arylcarbonyl, heteroarylcarbonyl, or heteroaryl group,  $(\text{CR}'\text{R}'')_{0-10}\text{NR}'\text{R}''$ ,  $(\text{CR}'\text{R}'')_{0-10}\text{CN}$ ,  $\text{NO}_2$ , halogen,  $(\text{CR}'\text{R}'')_{0-10}\text{C}(\text{halogen})_3$ ,  $(\text{CR}'\text{R}'')_{0-10}\text{CH}(\text{halogen})_2$ ,  $(\text{CR}'\text{R}'')_{0-10}\text{CH}_2(\text{halogen})$ ,  $(\text{CR}'\text{R}'')_{0-10}\text{CONR}'\text{R}''$ ,  $(\text{CR}'\text{R}'')_{0-10}(\text{CNH})\text{NR}'\text{R}''$ ,  $(\text{CR}'\text{R}'')_{0-10}\text{S}(\text{O})_{1-2}\text{NR}'\text{R}''$ ,  $(\text{CR}'\text{R}'')_{0-10}\text{CHO}$ ,  $(\text{CR}'\text{R}'')_{0-10}\text{O}(\text{CR}'\text{R}'')_{0-10}\text{H}$ ,  $(\text{CR}'\text{R}'')_{0-10}\text{S}(\text{O})_{0-3}\text{R}'$ ,  $(\text{CR}'\text{R}'')_{0-10}\text{O}(\text{CR}'\text{R}'')_{0-10}\text{H}$ ,  $(\text{CR}'\text{R}'')_{0-10}\text{S}(\text{CR}'\text{R}'')_{0-3}\text{H}$ ,  $(\text{CR}'\text{R}'')_{0-10}\text{OH}$ ,  $(\text{CR}'\text{R}'')_{0-10}\text{COR}'$ ,  $(\text{CR}'\text{R}'')_{0-10}$ (substituted or unsubstituted phenyl),  $(\text{CR}'\text{R}'')_{0-10}(\text{C}_3\text{-C}_8\text{ cycloalkyl})$ ,  $(\text{CR}'\text{R}'')_{0-10}\text{CO}_2\text{R}'$ , or  $(\text{CR}'\text{R}'')_{0-10}\text{OR}'$  group, or the side chain of any naturally occurring amino acid;

R' and R'' are each independently hydrogen, a  $\text{C}_1\text{-C}_5$  alkyl,  $\text{C}_2\text{-C}_5$  alkenyl,  $\text{C}_2\text{-C}_5$  alkynyl, or aryl group, or R' and R'' taken together are a benzylidene group or a  $-(\text{CH}_2)_2\text{O}(\text{CH}_2)_2-$  group;

and pharmaceutically acceptable salts thereof.

6. **(currently amended)** The method according to claim 1, wherein said compound is selected according to the following Formula, ~~such that amyloid fibril formation or deposition, neurodegeneration, or cellular toxicity is reduced or inhibited:~~



(Formula 1)

wherein each  $\text{R}^{\text{a}1}$ ,  $\text{R}^{\text{b}1}$ ,  $\text{R}^{\text{c}1}$ ,  $\text{R}^{\text{a}2}$ ,  $\text{R}^{\text{b}2}$ , and  $\text{R}^{\text{c}2}$  is independently a hydrogen, a Z group, or  $\text{R}^{\text{a}1}$  and  $\text{R}^{\text{b}1}$  or  $\text{R}^{\text{a}2}$  and  $\text{R}^{\text{b}2}$  are both taken together along with the nitrogen atoms to which they are bound to form a ring structure;

each of  $\text{Y}^1$  and  $\text{Y}^2$  is independently a direct bond or a linking moiety;

each of  $\text{R}^1$  and  $\text{R}^2$  is independently a hydrogen or a Z group, or two adjacent or proximate  $\text{R}^1$

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or R<sup>2</sup> groups taken together with the ring to which they are bound form a fused aromatic, heteroaromatic, cycloalkyl, or heterocyclic structure;

each of X<sup>1</sup> and X<sup>2</sup> is independently an alkylene group, an oxygen, a NR' group (where R' is hydrogen, a C<sub>1</sub>-C<sub>5</sub> alkyl, C<sub>2</sub>-C<sub>5</sub> alkenyl, C<sub>2</sub>-C<sub>5</sub> alkynyl, or aryl group), a sulfonamide group, a carbonyl, amide, C<sub>1</sub>-C<sub>5</sub> alkylene group, C<sub>2</sub>-C<sub>5</sub> alkenyl group, C<sub>2</sub>-C<sub>5</sub> alkynyl group, or a sulfur atom, or combinations thereof or a direct bond;

M is an alkylene group, an alkenylene group, an alkynylene group, an alkoxyalkylene group, an alkylaminoalkylene group, a thioalkoxyalkylene group, an arylenedialkylene group, an alkylenediarylene group, a heteroarylenedialkylene group, an arylene group, a heteroarylene group, an oligoetheral or oligo(alkyleneoxide) group, or an arylene-di(oligoalkyleneoxide) group, each of which may be substituted or unsubstituted;

Z is a substituted or unsubstituted moiety selected from straight or branched alkyl, cycloalkyl, alkoxy, thioalkyl, alkenyl, alkynyl, heterocyclic, carbocyclic, aryl, aryloxy, aralkyl, aryloxyalkyl, arylacetamidoyl, alkylaryl, heteroaralkyl, alkylcarbonyl, arylcarbonyl, heteroarylcarbonyl, or heteroaryl group, (CR'R'')<sub>0-10</sub>NR'R'', (CR'R'')<sub>0-10</sub>CN, NO<sub>2</sub>, halogen, (CR'R'')<sub>0-10</sub>C(halogen)<sub>3</sub>, (CR'R'')<sub>0-10</sub>CH(halogen)<sub>2</sub>, (CR'R'')<sub>0-10</sub>CH<sub>2</sub>(halogen), (CR'R'')<sub>0-10</sub>CONR'R'', (CR'R'')<sub>0-10</sub>(CNH)NR'R'', (CR'R'')<sub>0-10</sub>S(O)<sub>1-2</sub>NR'R'', (CR'R'')<sub>0-10</sub>CHO, (CR'R'')<sub>0-10</sub>O(CR'R'')<sub>0-10</sub>H, (CR'R'')<sub>0-10</sub>S(O)<sub>0-3</sub>R', (CR'R'')<sub>0-10</sub>O(CR'R'')<sub>0-10</sub>H, (CR'R'')<sub>0-10</sub>S(CR'R'')<sub>0-3</sub>H, (CR'R'')<sub>0-10</sub>OH, (CR'R'')<sub>0-10</sub>COR', (CR'R'')<sub>0-10</sub>(substituted or unsubstituted phenyl), (CR'R'')<sub>0-10</sub>(C<sub>3</sub>-C<sub>8</sub> cycloalkyl), (CR'R'')<sub>0-10</sub>CO<sub>2</sub>R', or (CR'R'')<sub>0-10</sub>OR' group, or the side chain of any naturally occurring amino acid;

R' and R'' are each independently hydrogen, a C<sub>1</sub>-C<sub>5</sub> alkyl, C<sub>2</sub>-C<sub>5</sub> alkenyl, C<sub>2</sub>-C<sub>5</sub> alkynyl, or aryl group, or R' and R'' taken together are a benzylidene group or a -(CH<sub>2</sub>)<sub>2</sub>O(CH<sub>2</sub>)<sub>2</sub>- group;

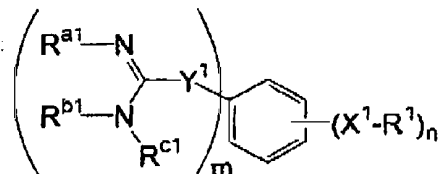
m and q are each independently an integer selected from zero to four inclusive, and n and p are each independently an integer selected from zero to four inclusive, such that m+n=5 and p+q=5, wherein either m or q is at least one;

and pharmaceutically acceptable salts thereof.

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7. (currently amended) The method according to claim 1, wherein said compound is selected according to the following Formula, ~~such that amyloid fibril formation or deposition, neurodegeneration, or cellular toxicity is reduced or inhibited:~~



(Formula II)

wherein each  $R^{a1}$ ,  $R^{b1}$ ,  $R^{c1}$ ,  $R^{a2}$ ,  $R^{b2}$ , and  $R^{c2}$  is independently a hydrogen, a Z group other than a substituted aryl group or a substituted alkyl group, or  $R^{a1}$  and  $R^{b1}$  or  $R^{a2}$  and  $R^{b2}$  are both taken together along with the nitrogen atoms to which they are bound to form a ring structure;

$Y^1$  is a direct bond or a linking moiety;

$R^1$  is a hydrogen or a Z group, or two adjacent or proximate  $R^1$  groups taken together with the corresponding  $X^1$  groups and the ring to which they are bound form a fused aromatic, heteroaromatic, cycloalkyl, or heterocyclic structure;

$X^1$  is an alkylene group, an oxygen, a  $NR'$  group (where  $R'$  is hydrogen, a  $C_1$ - $C_5$  alkyl,  $C_2$ - $C_5$  alkenyl,  $C_2$ - $C_5$  alkynyl, or aryl group), a sulfonamide group, a carbonyl, amide,  $C_1$ - $C_5$  alkylene group,  $C_2$ - $C_5$  alkenyl group,  $C_2$ - $C_5$  alkynyl group, or a sulfur atom, or combinations thereof or a direct bond;

Z is a substituted or unsubstituted moiety selected from straight or branched alkyl, cycloalkyl, alkoxy, thioalkyl, alkenyl, alkynyl, heterocyclic, carbocyclic, aryl, aryloxy, aralkyl, aryloxyalkyl, arylacetamidoyl, alkylaryl, heteroaralkyl, alkylcarbonyl, arylcarbonyl, heteroarylcarbonyl, or heteroaryl group,  $(CR'R'')_{0-10}NR'R''$ ,  $(CR'R'')_{0-10}CN$ ,  $NO_2$ , halogen,  $(CR'R'')_{0-10}C(halogen)_3$ ,  $(CR'R'')_{0-10}CH(halogen)_2$ ,  $(CR'R'')_{0-10}CH_2(halogen)$ ,  $(CR'R'')_{0-10}CONR'R''$ ,  $(CR'R'')_{0-10}(CNH)NR'R''$ ,  $(CR'R'')_{0-10}S(O)_{1-2}NR'R''$ ,  $(CR'R'')_{0-10}CHO$ ,  $(CR'R'')_{0-10}O(CR'R'')_{0-10}H$ ,  $(CR'R'')_{0-10}S(O)_{0-3}R'$ ,

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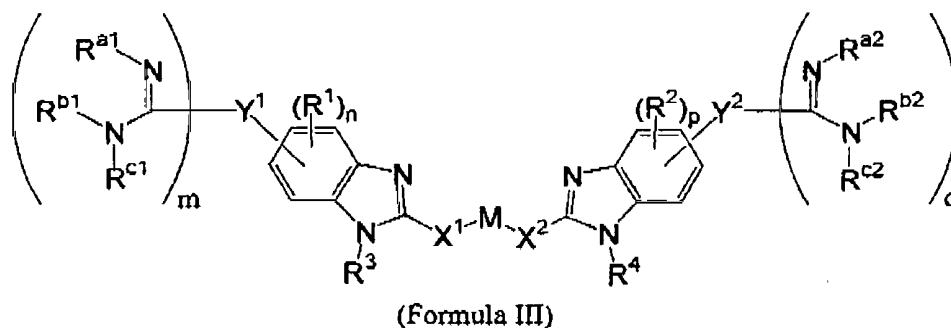
$(CR'R'')_{0-10}O(CR'R'')_{0-10}H$ ,  $(CR'R'')_{0-10}S(CR'R'')_{0-3}H$ ,  $(CR'R'')_{0-10}OH$ ,  $(CR'R'')_{0-10}COR'$ ,  $(CR'R'')_{0-10}$ (substituted or unsubstituted phenyl),  $(CR'R'')_{0-10}(C_3-C_8 \text{ cycloalkyl})$ ,  $(CR'R'')_{0-10}CO_2R'$ , or  $(CR'R'')_{0-10}OR'$  group, or the side chain of any naturally occurring amino acid;

$R'$  and  $R''$  are each independently hydrogen, a  $C_1-C_5$  alkyl,  $C_2-C_5$  alkenyl,  $C_2-C_5$  alkynyl, or aryl group, or  $R'$  and  $R''$  taken together are a benzylidene group or a  $-(CH_2)_2O(CH_2)_2-$  group;

$m$  is an integer selected from one to six inclusive, and  $n$  is an integer selected from zero to five inclusive, such that  $m+n=6$ ;

and pharmaceutically acceptable salts thereof.

8. **(currently amended)** The method according to claim 1, wherein said therapeutic compound is selected according to the following Formula, ~~such that amyloid fibril formation or deposition, neurodegeneration, or cellular toxicity is reduced or inhibited:~~



wherein each  $R^{a1}$ ,  $R^{b1}$ ,  $R^{c1}$ ,  $R^{a2}$ ,  $R^{b2}$ , and  $R^{c2}$  is independently a hydrogen, a Z group, or  $R^{a1}$  and  $R^{b1}$  or  $R^{a2}$  and  $R^{b2}$  are both taken together along with the nitrogen atoms to which they are bound to form a ring structure;

each of  $Y^1$  and  $Y^2$  is independently a direct bond or a linking moiety;

each of  $R^1$  and  $R^2$  is independently a hydrogen or a Z group, or two adjacent or proximate  $R^1$  or  $R^2$  groups taken together with the ring to which they are bound form a fused aromatic, heteroaromatic, cycloalkyl, or heterocyclic structure;

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each of  $R^3$  and  $R^4$  is independently selected from the group consisting of hydrogen, substituted or unsubstituted straight or branched alkyl, cycloalkyl, carbocyclic, aryl, heterocyclic, and heteroaryl;

each of  $X^1$  and  $X^2$  is independently an alkylene group, an oxygen, a  $NR'$  group (where  $R'$  is hydrogen, a  $C_1$ - $C_5$  alkyl,  $C_2$ - $C_5$  alkenyl,  $C_2$ - $C_5$  alkynyl, or aryl group), a sulfonamide group, a carbonyl, amide,  $C_1$ - $C_5$  alkylene group,  $C_2$ - $C_5$  alkenyl group,  $C_2$ - $C_5$  alkynyl group, or a sulfur atom, or combinations thereof or a direct bond;

M is an alkylene group, an alkenylene group, an alkynylene group, an alkoxyalkylene group, an alkylaminoalkylene group, a thioalkoxyalkylene group, an arylenedialkylene group, an alkylenediarylene group, a heteroarylenedialkylene group, an arylene group, a heteroarylene group, an oligoetheral or oligo(alkyleneoxide) group, or an arylene-di(oligoalkyleneoxide) group, each of which may be substituted or unsubstituted;

Z is a substituted or unsubstituted moiety selected from straight or branched alkyl, cycloalkyl, alkoxy, thioalkyl, alkenyl, alkynyl, heterocyclic, carbocyclic, aryl, aryloxy, aralkyl, aryloxyalkyl, arylacetamidoyl, alkylaryl, heteroaralkyl, alkylcarbonyl, arylcarbonyl, heteroarylcarbonyl, or heteroaryl group,  $(CR'R'')_{0-10}NR'R''$ ,  $(CR'R'')_{0-10}CN$ ,  $NO_2$ , halogen,  $(CR'R'')_{0-10}C(halogen)_3$ ,  $(CR'R'')_{0-10}CH(halogen)_2$ ,  $(CR'R'')_{0-10}CH_2(halogen)$ ,  $(CR'R'')_{0-10}CONR'R''$ ,  $(CR'R'')_{0-10}(CNH)NR'R''$ ,  $(CR'R'')_{0-10}S(O)_{1-2}NR'R''$ ,  $(CR'R'')_{0-10}CHO$ ,  $(CR'R'')_{0-10}O(CR'R'')_{0-10}H$ ,  $(CR'R'')_{0-10}S(O)_{0-3}R'$ ,  $(CR'R'')_{0-10}O(CR'R'')_{0-10}H$ ,  $(CR'R'')_{0-10}S(CR'R'')_{0-3}H$ ,  $(CR'R'')_{0-10}OH$ ,  $(CR'R'')_{0-10}COR'$ ,  $(CR'R'')_{0-10}(\text{substituted or unsubstituted phenyl})$ ,  $(CR'R'')_{0-10}(C_3-C_8 \text{ cycloalkyl})$ ,  $(CR'R'')_{0-10}CO_2R'$ , or  $(CR'R'')_{0-10}OR'$  group, or the side chain of any naturally occurring amino acid;

$R'$  and  $R''$  are each independently hydrogen, a  $C_1$ - $C_5$  alkyl,  $C_2$ - $C_5$  alkenyl,  $C_2$ - $C_5$  alkynyl, or aryl group, or  $R'$  and  $R''$  taken together are a benzyldiene group or a  $-(CH_2)_2O(CH_2)_2-$  group;

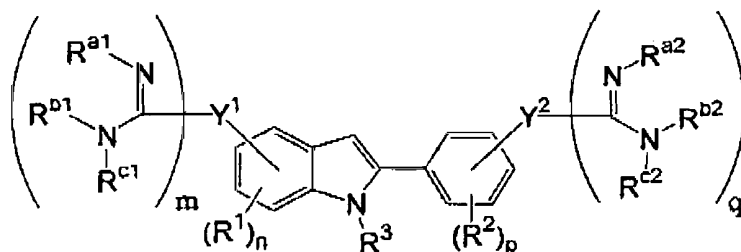
m, n, p, and q are each independently an integer selected from zero to three inclusive,  $m+n \leq 4$ ,  $p+q \leq 4$ , and  $m+q \geq 1$ ;

and pharmaceutically acceptable salts thereof.

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9. **(currently amended)** The method according to claim 1, wherein said compound is selected according to the following Formula, ~~such that amyloid fibril formation or deposition, neurodegeneration, or cellular toxicity is reduced or inhibited:~~



(Formula IV)

wherein each  $R^{a1}$ ,  $R^{b1}$ ,  $R^{c1}$ ,  $R^{a2}$ ,  $R^{b2}$ , and  $R^{c2}$  is independently a hydrogen, a Z group, or  $R^{a1}$  and  $R^{b1}$  or  $R^{a2}$  and  $R^{b2}$  are both taken together along with the nitrogen atoms to which they are bound to form a ring structure;

each of  $Y^1$  and  $Y^2$  is independently a direct bond or a linking moiety;

each of R<sup>1</sup> and R<sup>2</sup> is independently a hydrogen or a Z group, or two adjacent or proximate R<sup>1</sup> or R<sup>2</sup> groups taken together with the ring to which they are bound form a fused aromatic, heteroaromatic, cycloalkyl, or heterocyclic structure;

R<sup>3</sup> is selected from the group consisting of hydrogen, substituted or unsubstituted straight or branched alkyl, cycloalkyl, carbocyclic, aryl, heterocyclic, and heteroaryl;

Z is a substituted or unsubstituted moiety selected from straight or branched alkyl, cycloalkyl, alkoxy, thioalkyl, alkenyl, alkynyl, heterocyclic, carbocyclic, aryl, aryloxy, aralkyl, aryloxyalkyl, arylacetamidoyl, alkylaryl, heteroaralkyl, alkylcarbonyl, arylcarbonyl, heteroarylcarbonyl, or heteroaryl group,  $(CR'R'')_{0-10}NR'R''$ ,  $(CR'R'')_{0-10}CN$ ,  $NO_2$ , halogen,  $(CR'R'')_{0-10}C(halogen)_3$ ,  $(CR'R'')_{0-10}CH(halogen)_2$ ,  $(CR'R'')_{0-10}CH_2(halogen)$ ,  $(CR'R'')_{0-10}CONR'R''$ ,  $(CR'R'')_{0-10}(CNH)NR'R''$ ,  $(CR'R'')_{0-10}S(O)_{1-2}NR'R''$ ,  $(CR'R'')_{0-10}CHO$ ,  $(CR'R'')_{0-10}O(CR'R'')_{0-10}H$ ,  $(CR'R'')_{0-10}S(O)_{0-3}R'$ ,  $(CR'R'')_{0-10}O(CR'R'')_{0-10}H$ ,  $(CR'R'')_{0-10}S(CR'R'')_{0-3}H$ ,  $(CR'R'')_{0-10}OH$ ,  $(CR'R'')_{0-10}COR'$ ,  $(CR'R'')_{0-10}(\text{substituted or unsubstituted phenyl})$ ,  $(CR'R'')_{0-10}(C_3-C_8 \text{ cycloalkyl})$ ,

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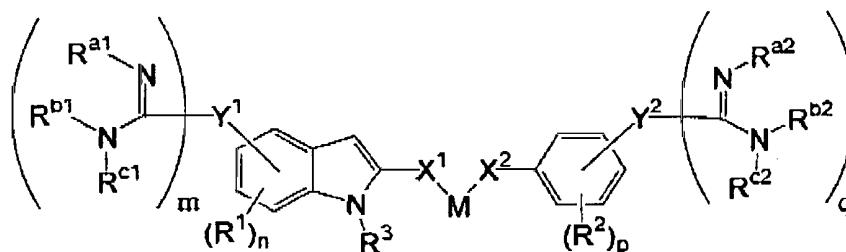
$(CR'R'')_{0-10}CO_2R'$ , or  $(CR'R'')_{0-10}OR'$  group, or the side chain of any naturally occurring amino acid;

$R'$  and  $R''$  are each independently hydrogen, a  $C_1-C_5$  alkyl,  $C_2-C_5$  alkenyl,  $C_2-C_5$  alkynyl, or aryl group, or  $R'$  and  $R''$  taken together are a benzylidene group or a  $-(CH_2)_2O(CH_2)_2-$  group;

$m$  and  $n$  are each independently an integer selected from zero to three inclusive,  $p$  and  $q$  are each independently an integer selected from zero to four inclusive,  $m+n \leq 4$ ,  $p+q \leq 5$ , and  $m+q \geq 1$ ;

and pharmaceutically acceptable salts thereof.

10. **(currently amended)** The method according to claim 1, wherein said compound is selected according to the following Formula, ~~such that amyloid fibril formation or deposition, neurodegeneration, or cellular toxicity is reduced or inhibited:~~



(Formula IVb)

wherein each  $R^{a1}$ ,  $R^{b1}$ ,  $R^{c1}$ ,  $R^{a2}$ ,  $R^{b2}$ , and  $R^{c2}$  is independently a hydrogen, a Z group, or  $R^{a1}$  and  $R^{b1}$  or  $R^{a2}$  and  $R^{b2}$  are both taken together along with the nitrogen atoms to which they are bound to form a ring structure;

each of  $Y^1$  and  $Y^2$  is independently a direct bond or a linking moiety;

each of  $R^1$  and  $R^2$  is independently a hydrogen or a Z group, or two adjacent or proximate  $R^1$  or  $R^2$  groups taken together with the ring to which they are bound form a fused aromatic, heteroaromatic, cycloalkyl, or heterocyclic structure;

$R^3$  is selected from the group consisting of hydrogen, substituted or unsubstituted straight or



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branched alkyl, cycloalkyl, carbocyclic, aryl, heterocyclic, and heteroaryl;

each of  $X^1$  and  $X^2$  is independently an alkylene group, an oxygen, a  $NR'$  group (where  $R'$  is hydrogen, a  $C_1-C_5$  alkyl,  $C_2-C_5$  alkenyl,  $C_2-C_5$  alkynyl, or aryl group), a sulfonamide group, a carbonyl, amide,  $C_1-C_5$  alkylene group,  $C_2-C_5$  alkenyl group,  $C_2-C_5$  alkynyl group, or a sulfur atom, or combinations thereof or a direct bond;

$M$  is an alkylene group, an alkenylene group, an alkynylene group, an alkoxyalkylene group, an alkylaminoalkylene group, a thioalkoxyalkylene group, an arylenedialkylene group, an alkylenediarylene group, a heteroarylenedialkylene group, an arylene group, a heteroarylene group, an oligoetheral or oligo(alkyleneoxide) group, or an arylene-di(oligoalkyleneoxide) group, each of which may be substituted or unsubstituted;

$Z$  is a substituted or unsubstituted moiety selected from straight or branched alkyl, cycloalkyl, alkoxy, thioalkyl, alkenyl, alkynyl, heterocyclic, carbocyclic, aryl, aryloxy, aralkyl, aryloxyalkyl, arylacetamidoyl, alkylaryl, heteroaralkyl, alkylcarbonyl, arylcarbonyl, heteroarylcarbonyl, or heteroaryl group,  $(CR'R'')_{0-10}NR'R''$ ,  $(CR'R'')_{0-10}CN$ ,  $NO_2$ , halogen,  $(CR'R'')_{0-10}C(halogen)_3$ ,  $(CR'R'')_{0-10}CH(halogen)_2$ ,  $(CR'R'')_{0-10}CH_2(halogen)$ ,  $(CR'R'')_{0-10}CONR'R''$ ,  $(CR'R'')_{0-10}(CNH)NR'R''$ ,  $(CR'R'')_{0-10}S(O)_{1-2}NR'R''$ ,  $(CR'R'')_{0-10}CHO$ ,  $(CR'R'')_{0-10}O(CR'R'')_{0-10}H$ ,  $(CR'R'')_{0-10}S(O)_{0-3}R'$ ,  $(CR'R'')_{0-10}O(CR'R'')_{0-10}H$ ,  $(CR'R'')_{0-10}S(CR'R'')_{0-3}H$ ,  $(CR'R'')_{0-10}OH$ ,  $(CR'R'')_{0-10}COR'$ ,  $(CR'R'')_{0-10}(\text{substituted or unsubstituted phenyl})$ ,  $(CR'R'')_{0-10}(C_3-C_8 \text{ cycloalkyl})$ ,  $(CR'R'')_{0-10}CO_2R'$ , or  $(CR'R'')_{0-10}OR'$  group, or the side chain of any naturally occurring amino acid;

$R'$  and  $R''$  are each independently hydrogen, a  $C_1-C_5$  alkyl,  $C_2-C_5$  alkenyl,  $C_2-C_5$  alkynyl, or aryl group, or  $R'$  and  $R''$  taken together are a benzylidene group or a  $-(CH_2)_2O(CH_2)_2-$  group;

$m$  and  $n$  are each independently an integer selected from zero to three inclusive,  $p$  and  $q$  are each independently an integer selected from zero to four inclusive,  $m+n \leq 4$ ,  $p+q \leq 5$ , and  $m+q \geq 1$ ;

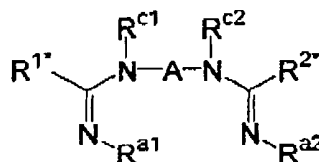
and pharmaceutically acceptable salts thereof.

11. **(currently amended)** The method according to claim 1, wherein said compound is selected according to the following Formula, ~~such that amyloid fibril formation or deposition,~~

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~~neurodegeneration, or cellular toxicity is reduced or inhibited:~~



(Formula V)

wherein each  $R^{a1}$ ,  $R^{b1}$ ,  $R^{c1}$ ,  $R^{a2}$ ,  $R^{b2}$ , and  $R^{c2}$  is independently a hydrogen, a Z group, or  $R^{a1}$  and  $R^{b1}$  or  $R^{a2}$  and  $R^{b2}$  are both taken together along with the nitrogen atoms to which they are bound to form a ring structure;

A is a carrier moiety selected from substituted or unsubstituted aliphatic and aromatic groups, and combinations thereof; such that the  $Y^1$  and  $Y^2$  moieties are bonded to an aromatic group;

Z is a substituted or unsubstituted moiety selected from straight or branched alkyl, cycloalkyl, alkoxy, thioalkyl, alkenyl, alkynyl, heterocyclic, carbocyclic, aryl, aryloxy, aralkyl, aryloxyalkyl, arylacetamidoyl, alkylaryl, heteroaralkyl, alkylcarbonyl, arylcarbonyl, heteroarylcarbonyl, or heteroaryl group,  $(CR'R'')_{0-10}NR'R''$ ,  $(CR'R'')_{0-10}CN$ ,  $NO_2$ , halogen,  $(CR'R'')_{0-10}C(halogen)_3$ ,  $(CR'R'')_{0-10}CH(halogen)_2$ ,  $(CR'R'')_{0-10}CH_2(halogen)$ ,  $(CR'R'')_{0-10}CONR'R''$ ,  $(CR'R'')_{0-10}(CNH)NR'R''$ ,  $(CR'R'')_{0-10}S(O)_{1-2}NR'R''$ ,  $(CR'R'')_{0-10}CHO$ ,  $(CR'R'')_{0-10}O(CR'R'')_{0-10}H$ ,  $(CR'R'')_{0-10}S(O)_{0-3}R'$ ,  $(CR'R'')_{0-10}O(CR'R'')_{0-10}H$ ,  $(CR'R'')_{0-10}S(CR'R'')_{0-3}H$ ,  $(CR'R'')_{0-10}OH$ ,  $(CR'R'')_{0-10}COR'$ ,  $(CR'R'')_{0-10}(\text{substituted or unsubstituted phenyl})$ ,  $(CR'R'')_{0-10}(C_3-C_8 \text{ cycloalkyl})$ ,  $(CR'R'')_{0-10}CO_2R'$ , or  $(CR'R'')_{0-10}OR'$  group, or the side chain of any naturally occurring amino acid;

$R'$  and  $R''$  are each independently hydrogen, a  $C_1-C_5$  alkyl,  $C_2-C_5$  alkenyl,  $C_2-C_5$  alkynyl, or aryl group, or  $R'$  and  $R''$  taken together are a benzylidene group or a  $-(CH_2)_2O(CH_2)_2-$  group;

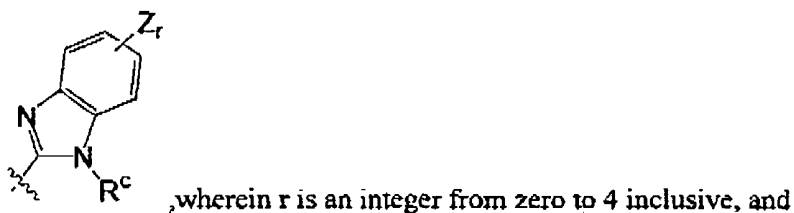
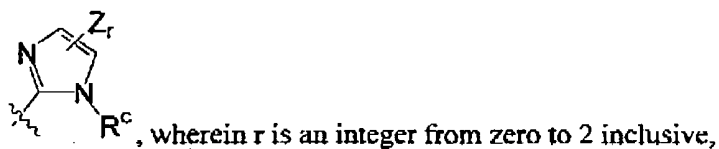
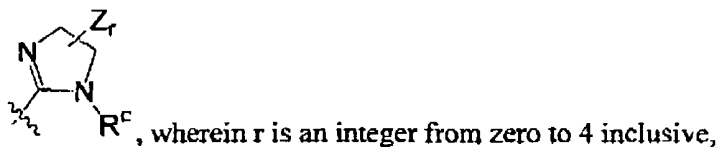
and pharmaceutically acceptable salts thereof.

12. **(currently amended)** The method according to claim 1, wherein said amyloid-related disease is ~~an A $\beta$  amyloid related disease~~ associated with amyloid- $\beta$ .

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13. (original) The method according to claim 1, wherein said amyloid-related disease is Alzheimer's disease, cerebral amyloid angiopathy, Down's syndrome, or inclusion body myositis.
14. (original) The method according to claim 1, wherein said amyloid-related disease is type II diabetes.
15. (original) The method according to claim 1, where said subject is a human.
16. (currently amended) The method according to claim 5, wherein said ring structure is selected from the following:



Z and R<sup>c</sup> are as defined in claim 5 are each independently a substituted or unsubstituted moiety selected from straight or branched alkyl, cycloalkyl, alkoxy, thioalkyl, alkenyl, alkynyl, heterocyclic, carbocyclic, aryl, aryloxy, aralkyl, aryloxyalkyl, arylacetamidovl, alkylaryl, heteroaralkyl, alkylcarbonyl, arylcarbonyl, heteroarylcarbonyl, or heteroaryl

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group, (CR'R'')<sub>0-10</sub>NR'R'', (CR'R'')<sub>0-10</sub>CN, NO<sub>2</sub>, halogen, (CR'R'')<sub>0-10</sub>C(halogen)<sub>3</sub>, (CR'R'')<sub>0-10</sub>CH(halogen)<sub>2</sub>, (CR'R'')<sub>0-10</sub>CH<sub>2</sub>(halogen), (CR'R'')<sub>0-10</sub>CONR'R'', (CR'R'')<sub>0-10</sub>(CNH)NR'R'', (CR'R'')<sub>0-10</sub>S(O)<sub>1-2</sub>NR'R'', (CR'R'')<sub>0-10</sub>CHO, (CR'R'')<sub>0-10</sub>O(CR'R'')<sub>0-10</sub>H, (CR'R'')<sub>0-10</sub>S(O)<sub>0-3</sub>R', (CR'R'')<sub>0-10</sub>O(CR'R'')<sub>0-10</sub>H, (CR'R'')<sub>0-10</sub>S(CR'R'')<sub>0-3</sub>H, (CR'R'')<sub>0-10</sub>OH, (CR'R'')<sub>0-10</sub>COR', (CR'R'')<sub>0-10</sub>(substituted or unsubstituted phenyl), (CR'R'')<sub>0-10</sub>(C<sub>3</sub>-C<sub>8</sub> cycloalkyl), (CR'R'')<sub>0-10</sub>CO<sub>2</sub>R', or (CR'R'')<sub>0-10</sub>OR' group, or the side chain of any naturally occurring amino acid; and

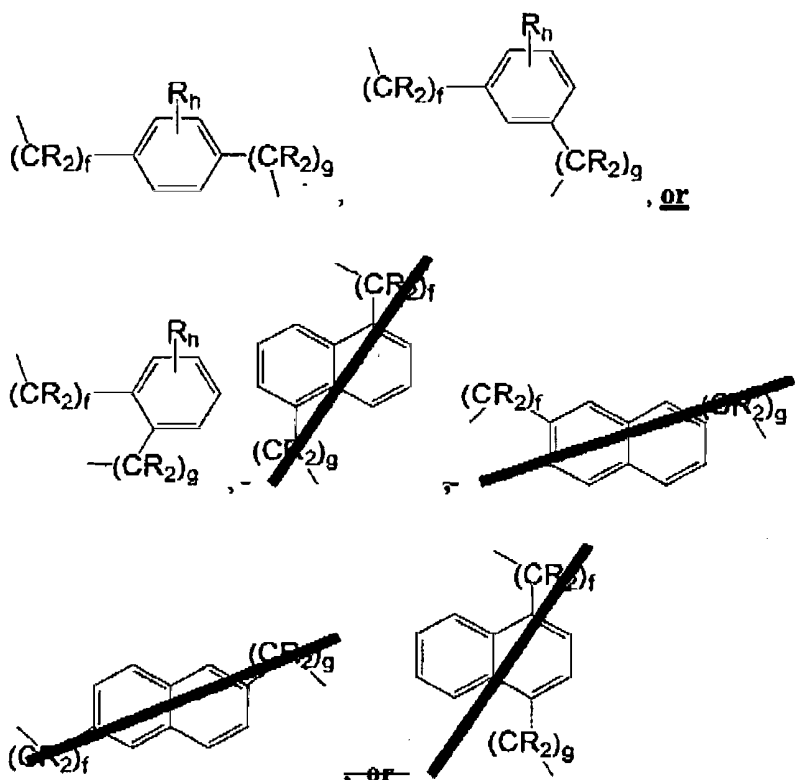
R' and R'' are each independently hydrogen, a C<sub>1</sub>-C<sub>5</sub> alkyl, C<sub>2</sub>-C<sub>5</sub> alkenyl, C<sub>2</sub>-C<sub>5</sub> alkynyl, or aryl group, or R' and R'' taken together are a benzylidene group or a -(CH<sub>2</sub>)<sub>2</sub>O(CH<sub>2</sub>)<sub>2</sub>- group.

17. (original) The method according to claim 5, wherein each of said R<sup>a1</sup>, R<sup>b1</sup>, R<sup>c1</sup>, R<sup>a2</sup>, R<sup>b2</sup>, and R<sup>c2</sup> groups is a hydrogen, hydroxy group, a substituted or unsubstituted C<sub>1</sub>-C<sub>8</sub> alkyl or C<sub>1</sub>-C<sub>8</sub> alkoxy group.
18. (original) The method according to claim 5, wherein each of said R<sup>a1</sup>, R<sup>b1</sup>, R<sup>c1</sup>, R<sup>a2</sup>, R<sup>b2</sup>, and R<sup>c2</sup> groups is an aromatic group or heteroaromatic group.
19. (currently amended) The method according to claim 5, wherein each of said R<sup>a1</sup>, R<sup>b1</sup>, R<sup>c1</sup>, R<sup>a2</sup>, R<sup>b2</sup>, and R<sup>c2</sup> groups is a ~~R<sup>3</sup> group as defined in claim 9~~ hydrogen, substituted or unsubstituted straight or branched alkyl, cycloalkyl, carbocyclic, aryl, heterocyclic, or heteroaryl group.
20. (original) The method according to claim 5, wherein each of said Y<sup>1</sup> and Y<sup>2</sup> groups is a linking moiety of less than about 75 molecular weight.
21. (original) The method according to claim 5, wherein said Y<sup>1</sup> and Y<sup>2</sup> groups is a direct bond.
22. (original) The method according to claim 6, wherein each of said R<sup>1</sup> and R<sup>2</sup> groups is independently a hydrogen, a substituted or unsubstituted C<sub>1</sub>-C<sub>8</sub> alkyl group, a substituted or unsubstituted C<sub>1</sub>-C<sub>8</sub> alkenyl group, a halogen, a substituted or unsubstituted aryl or heteroaryl group, a substituted or unsubstituted amino group, a nitro group, or a substituted or unsubstituted C<sub>1</sub>-C<sub>8</sub> alkoxy group.
23. (original) The method according to claim 6, wherein said M group is -[(CH<sub>2</sub>)<sub>5</sub>O]<sub>t</sub>(CH<sub>2</sub>)<sub>s</sub>-, where t is 1 to 6 and s is 2 to 6.

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24. **(original)** The method according to claim 6, wherein said M group is a phenylenedialkylene group.
25. **(currently amended)** The method according to claim 6, wherein said M arylene dialkylene group is



wherein each R group is independently a hydrogen or is ~~selected from the group Z as defined in claim 5,~~ a substituted or unsubstituted moiety selected from straight or branched alkyl, cycloalkyl, alkoxy, thioalkyl, alkenyl, alkynyl, heterocyclic, carbocyclic, aryl, aryloxy, aralkyl, aryloxyalkyl, arylacetamidovl, alkylaryl, heteroaralkyl, alkylcarbonyl, arylcarbonyl, heteroarylcarbonyl, or heteroaryl group.  $(CR'R'')_{0-10}NR'R''$ ,  $(CR'R'')_{0-10}CN$ ,  $NO_2$ , halogen,  $(CR'R'')_{0-10}C(halogen)_3$ ,  $(CR'R'')_{0-10}CH(halogen)_2$ ,  $(CR'R'')_{0-10}CH_2(halogen)$ ,  $(CR'R'')_{0-10}CONR'R''$ ,  $(CR'R'')_{0-10}(CNH)NR'R''$ ,  $(CR'R'')_{0-10}S(O)_{1-2}NR'R''$ ,  $(CR'R'')_{0-10}CHO$ ,  $(CR'R'')_{0-10}O(CR'R'')_{0-10}H$ ,  $(CR'R'')_{0-10}S(O)_{0-3}R'$ ,  $(CR'R'')_{0-10}O(CR'R'')_{0-10}H$ ,  $(CR'R'')_{0-10}S(CR'R'')_{0-3}H$ ,  $(CR'R'')_{0-10}OH$ ,  $(CR'R'')_{0-10}COR'$ ,  $(CR'R'')_{0-10}$ (substituted or unsubstituted phenyl).

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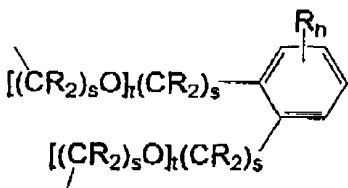
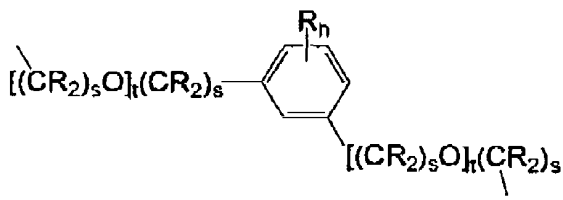
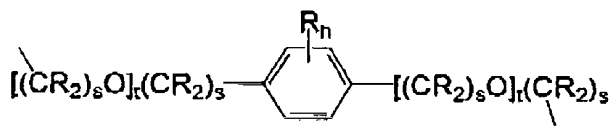
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(CR'R'')<sub>0-10</sub>(C<sub>3</sub>-C<sub>8</sub> cycloalkyl), (CR'R'')<sub>0-10</sub>CO<sub>2</sub>R', or (CR'R'')<sub>0-10</sub>OR' group, or the side chain of any naturally occurring amino acid; and

R' and R'' are each independently hydrogen, a C<sub>1</sub>-C<sub>5</sub> alkyl, C<sub>2</sub>-C<sub>5</sub> alkenyl, C<sub>2</sub>-C<sub>5</sub> alkynyl, or aryl group, or R' and R'' taken together are a benzyldene group or a -(CH<sub>2</sub>)<sub>2</sub>O(CH<sub>2</sub>)<sub>2</sub>- group; and

1 ≤ f ≤ 8, 1 ≤ g ≤ 8, 0 ≤ h ≤ 4.

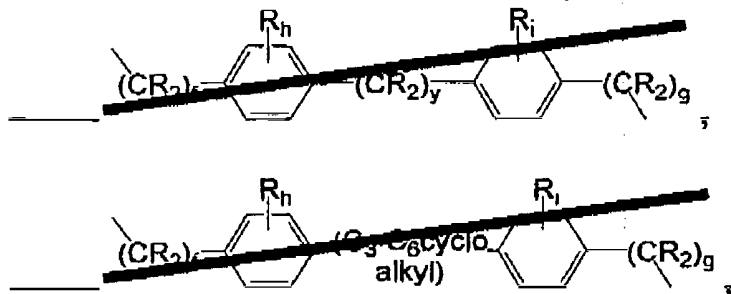
26. (original) The method according to claim 6, wherein said M group is a substituted or unsubstituted C<sub>2</sub>-C<sub>8</sub> alkylene group, a substituted or unsubstituted C<sub>1</sub>-C<sub>8</sub> alkenylene group, a substituted or unsubstituted C<sub>2</sub>-C<sub>8</sub> alkynylene group.
27. (currently amended) The method according to claim 6, wherein said M group is



wherein 1 ≤ t ≤ 6, 0 ≤ s ≤ 6, 0 ≤ h ≤ 4, and each R group is independently a hydrogen or is selected from the group Z as defined in claim 5; or

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wherein  $1 \leq y \leq 10$  (preferably  $1 \leq y \leq 4$ ),  $1 \leq f \leq 8$ ,  $1 \leq g \leq 8$ ,  $0 \leq h \leq 4$ , and  $0 \leq i \leq 4$ , and

each R group is independently a hydrogen or is selected from the group Z as defined in claim 5-a substituted or unsubstituted moiety selected from straight or branched alkyl, cycloalkyl, alkoxy, thioalkyl, alkenyl, alkynyl, heterocyclic, carbocyclic, aryl, aryloxy, aralkyl, aryloxyalkyl, arylacetamidoyl, alkylaryl, heteroaralkyl, alkylcarbonyl, arylcarbonyl, heteroarylcarbonyl, or heteroaryl group,  $(CR'R'')_{0-10}NR'R''$ ,  $(CR'R'')_{0-10}CN$ ,  $NO_2$ , halogen,  $(CR'R'')_{0-10}C(halogen)_3$ ,  $(CR'R'')_{0-10}CH(halogen)_2$ ,  $(CR'R'')_{0-10}CH_2(halogen)$ ,  $(CR'R'')_{0-10}CONR'R''$ ,  $(CR'R'')_{0-10}(CNH)NR'R''$ ,  $(CR'R'')_{0-10}S(O)_{1-2}NR'R''$ ,  $(CR'R'')_{0-10}CHO$ ,  $(CR'R'')_{0-10}O(CR'R'')_{0-10}H$ ,  $(CR'R'')_{0-10}S(O)_{0-3}R'$ ,  $(CR'R'')_{0-10}O(CR'R'')_{0-10}H$ ,  $(CR'R'')_{0-10}S(CR'R'')_{0-3}H$ ,  $(CR'R'')_{0-10}OH$ ,  $(CR'R'')_{0-10}COR'$ ,  $(CR'R'')_{0-10}(\text{substituted or unsubstituted phenyl})$ ,  $(CR'R'')_{0-10}(C_3-C_8 \text{ cycloalkyl})$ ,  $(CR'R'')_{0-10}CO_2R'$ , or  $(CR'R'')_{0-10}OR'$  group, or the side chain of any naturally occurring amino acid; and

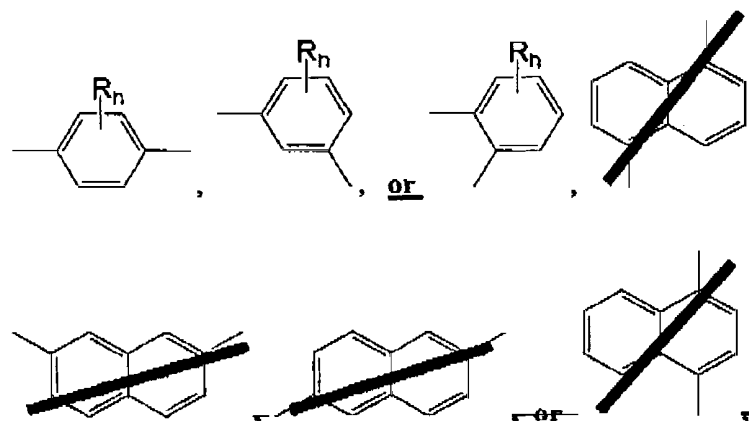
R' and R'' are each independently hydrogen, a C<sub>1</sub>-C<sub>5</sub> alkyl, C<sub>2</sub>-C<sub>5</sub> alkenyl, C<sub>2</sub>-C<sub>5</sub> alkynyl, or aryl group, or R' and R'' taken together are a benzylidene group or a  $-(CH_2)_2O(CH_2)_2-$  group.

- 28. (cancelled).
- 29. (cancelled).
- 30. (cancelled).

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31. (currently amended) The method according to claim 6, wherein said M group is



wherein each R group is independently a hydrogen or is ~~selected from the group Z defined in claim 5~~, a substituted or unsubstituted moiety selected from straight or branched alkyl, cycloalkyl, alkoxy, thioalkyl, alkenyl, alkynyl, heterocyclic, carbocyclic, aryl, aryloxy, aralkyl, aryloxyalkyl, arylacetamidoyl, alkylaryl, heteroaralkyl, alkylcarbonyl, arylcarbonyl, heteroarylcarbonyl, or heteroaryl group,  $(CR'R'')_{0-10}NR'R''$ ,  $(CR'R'')_{0-10}CN$ ,  $NO_2$ , halogen,  $(CR'R'')_{0-10}C(halogen)_3$ ,  $(CR'R'')_{0-10}CH(halogen)_2$ ,  $(CR'R'')_{0-10}CH_2(halogen)$ ,  $(CR'R'')_{0-10}CONR'R''$ ,  $(CR'R'')_{0-10}(CNH)NR'R''$ ,  $(CR'R'')_{0-10}S(O)_{1-2}NR'R''$ ,  $(CR'R'')_{0-10}CHO$ ,  $(CR'R'')_{0-10}O(CR'R'')_{0-10}H$ ,  $(CR'R'')_{0-10}S(O)_{0-3}R'$ ,  $(CR'R'')_{0-10}O(CR'R'')_{0-10}H$ ,  $(CR'R'')_{0-10}S(CR'R'')_{0-3}H$ ,  $(CR'R'')_{0-10}OH$ ,  $(CR'R'')_{0-10}COR'$ ,  $(CR'R'')_{0-10}$ (substituted or unsubstituted phenyl),  $(CR'R'')_{0-10}(C_3-C_8$  cycloalkyl),  $(CR'R'')_{0-10}CO_2R'$ , or  $(CR'R'')_{0-10}OR'$  group, or the side chain of any naturally occurring amino acid; and

$R'$  and  $R''$  are each independently hydrogen, a  $C_1-C_5$  alkyl,  $C_2-C_5$  alkenyl,  $C_2-C_5$  alkynyl, or aryl group, or  $R'$  and  $R''$  taken together are a benzylidene group or a  $-(CH_2)_2O(CH_2)_2-$  group; and

$0 \leq h \leq 4$ .

32. (cancelled).

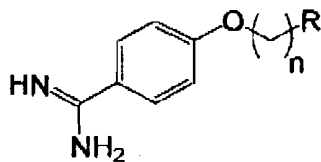
33. (cancelled).



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34. (cancelled).
35. (cancelled).
36. (cancelled).
37. (original) The method according to claim 2, wherein  $m=1$ ,  $n=0, 1$ , or  $2$ ,  $p=0, 1$ , or  $2$ , and  $q=1$ .
38. (original) The method according to claims 5, wherein  $R^{a1}=R^{a2}$ ,  $R^{b1}=R^{b2}$ ,  $R^{c1}=R^{c2}$ ,  $m=q$ ,  $n=p$ , and  $Y^1=Y^2$ .
39. (original) The method according to claim 6, wherein  $R^1=R^2$ , and  $X^1=X^2$ .
40. (original) The method according to claim 5, wherein said pharmaceutically acceptable salt is a hydrohalide salt or a 2-hydroxyethanesulfonate salt.
41. (cancelled).
42. (currently amended) A pharmaceutical composition for ~~the treatment of~~ for treating or preventing an amyloid-related disease comprising a compound according to claim 5.
43. (currently amended) The method according to claim 5, wherein said linking moiety is  $-(CH_2)_n-$  (wherein  $n$  is 1, 2, or 3),  $-NR^3-$  ~~wherein  $R^3$  is as defined in claim 9~~,  $-NH-$ ,  $-S-$ ,  $-O-$ ,  $-NH-CH_2-$ , or  $-CH=CH-$ , or combinations thereof; wherein  $R^3$  is selected from the group consisting of hydrogen, substituted or unsubstituted straight or branched alkyl, cycloalkyl, carbocyclic, aryl, heterocyclic, and heteroaryl.
44. (currently amended) A chemical compound according to the formula:



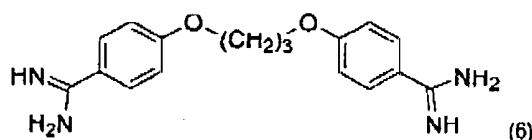
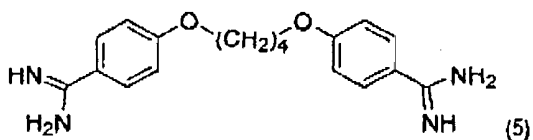
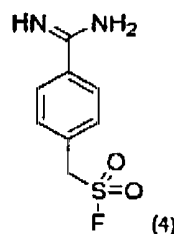
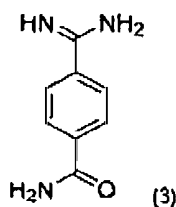
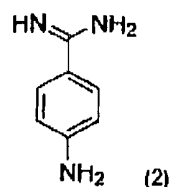
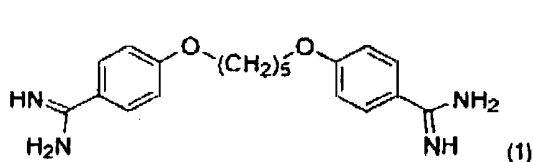
wherein  $n$  is an ~~integer~~ integer from 7 to 10, and  $R$  is Br or  $CO_2H$ , and pharmaceutically acceptable salts thereof.

45. (cancelled).

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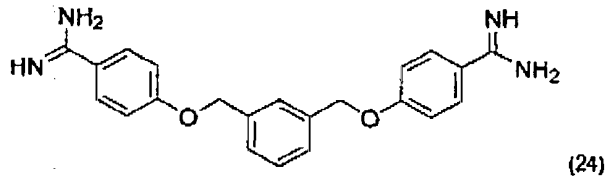
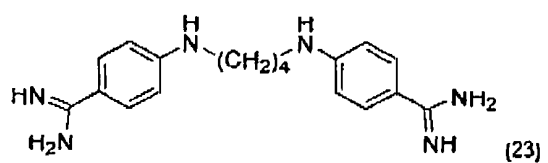
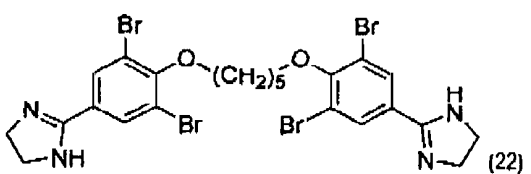
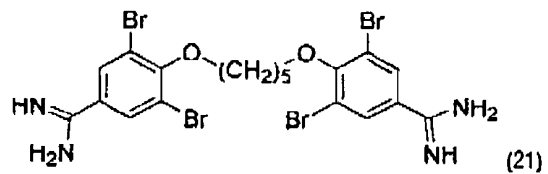
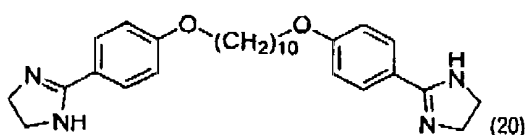
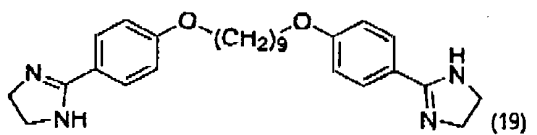
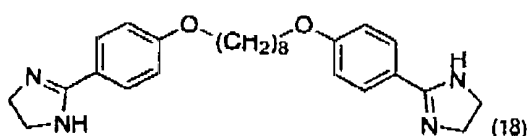
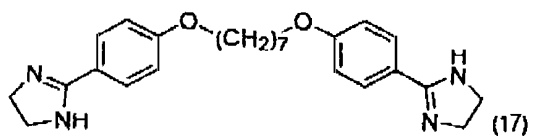
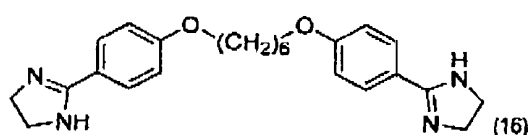
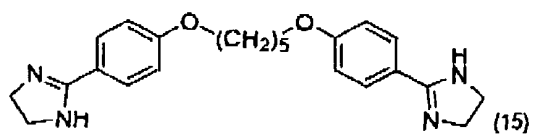
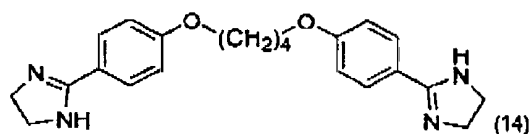
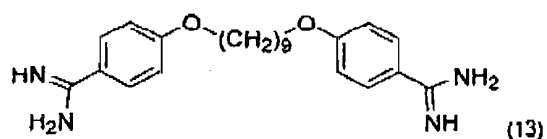
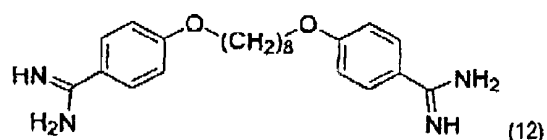
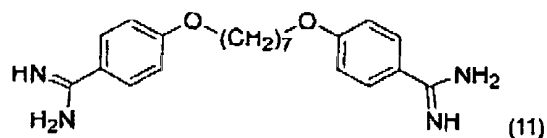
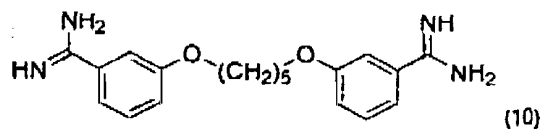
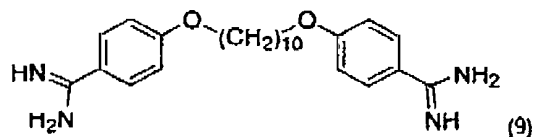
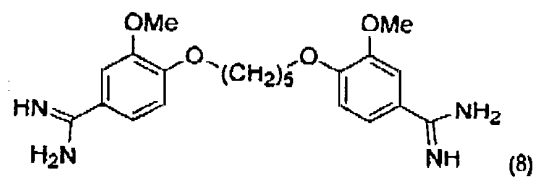
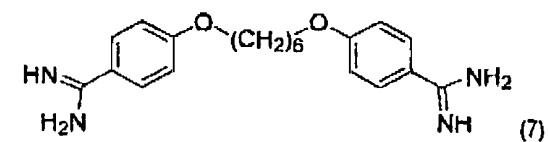
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46. **(currently amended)** A pharmaceutical composition for treating or preventing an amyloid-related disease comprising a therapeutically effective amount of a chemical compound according to claim 44.
47. **(original)** The method of claim 1, wherein said amidine compound causes in an Alzheimer's patient a stabilization of cognitive function, prevention of a further decrease in cognitive function, or prevention, slowing, or stopping of disease progression.
48. **(currently amended)** The method according to claim 5, wherein Z is a substituted or unsubstituted moiety selected from straight or branched C<sub>1</sub>-C<sub>5</sub> alkyl, C<sub>3</sub>-C<sub>8</sub> cycloalkyl, C<sub>1</sub>-C<sub>6</sub> alkoxy, C<sub>1</sub>-C<sub>6</sub> thioalkyl, C<sub>2</sub>-C<sub>6</sub> alkenyl, C<sub>2</sub>-C<sub>6</sub> alkynyl, heterocyclic, carbocyclic, phenyl, phenoxy, benzyl, phenyloxyalkyl, arylacetamidoyl, alkylaryl, heteroaralkyl, alkylcarbonyl, arylcarbonyl, heteroarylcarbonyl, or heteroaryl group, -NH<sub>2</sub>, -CN, NO<sub>2</sub>, F, Cl, Br, I, -CF<sub>3</sub>, (CR'R'')<sub>0-3</sub>CONR'R'', (CR'R'')<sub>0-3</sub>(CNH)NR'R'', (CR'R'')<sub>0-3</sub>S(O)<sub>1-2</sub>NR'R'', (CR'R'')<sub>0-3</sub>CHO, (CR'R'')<sub>0-3</sub>O(CR'R'')<sub>0-3</sub>H, -SO<sub>3</sub>H, -CH<sub>2</sub>OCH<sub>3</sub>, -OCH<sub>3</sub>, -SH, -SCH<sub>3</sub>, -OH, (CR'R'')<sub>0-3</sub>COR', (CR'R'')<sub>0-3</sub>(substituted or unsubstituted phenyl), (CR'R'')<sub>0-3</sub>(C<sub>3</sub>-C<sub>8</sub> cycloalkyl), -CO<sub>2</sub>H, or (CR'R'')<sub>0-3</sub>OR' group.
49. **(new)** The method according to claim 1, wherein said compound is selected from the group consisting of



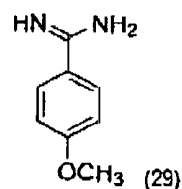
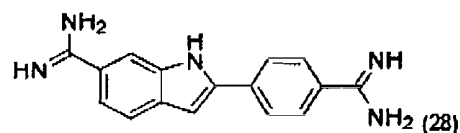
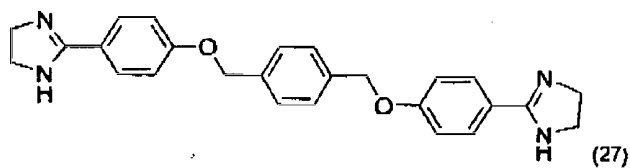
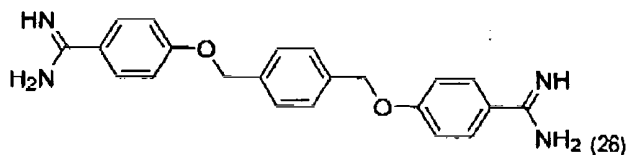
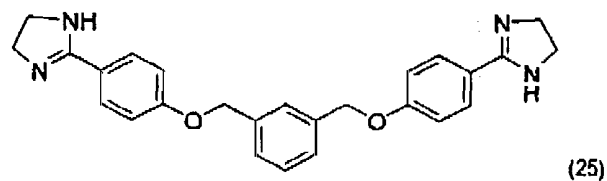
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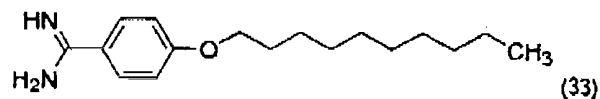
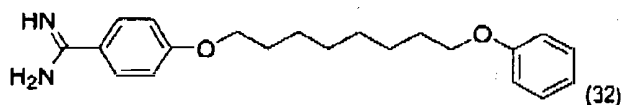
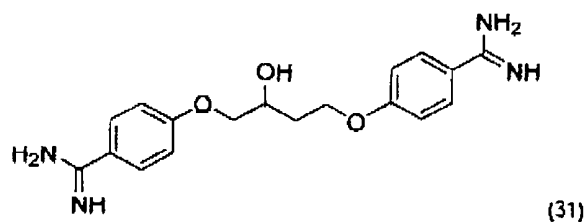
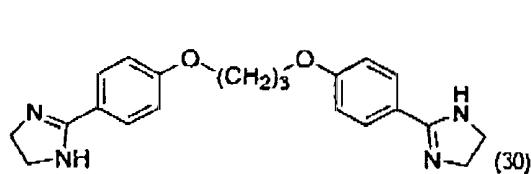
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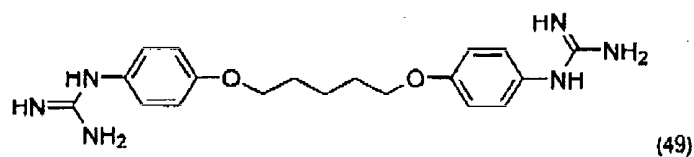
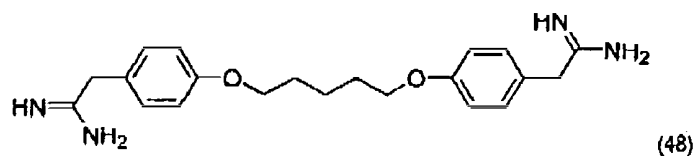
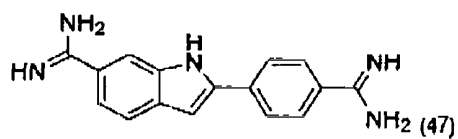
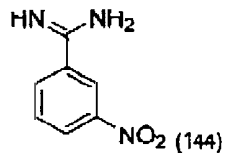
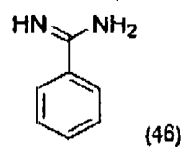
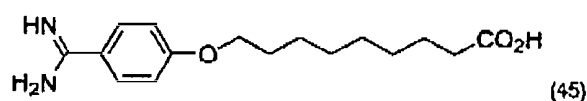
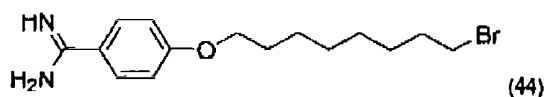
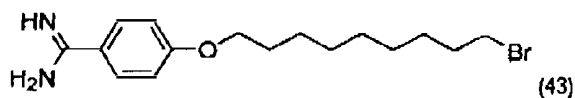
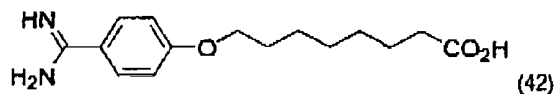
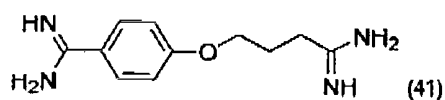
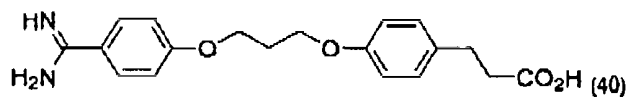
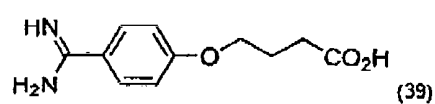
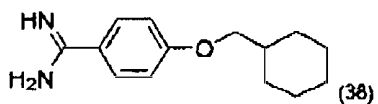
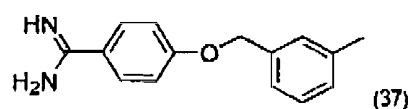
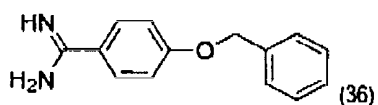
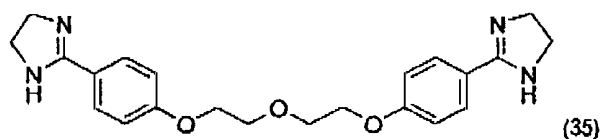
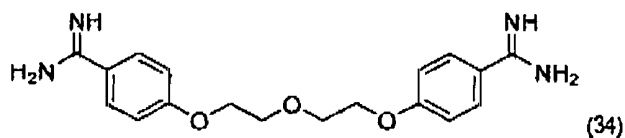
and pharmaceutically acceptable salts thereof.

50. **(new)** The method according to claim 1, wherein said compound is selected from the group consisting of



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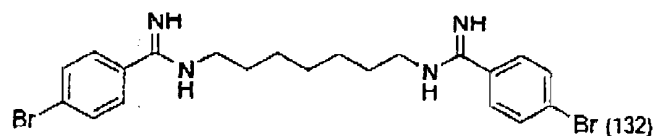
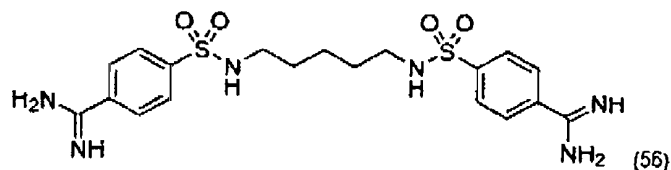
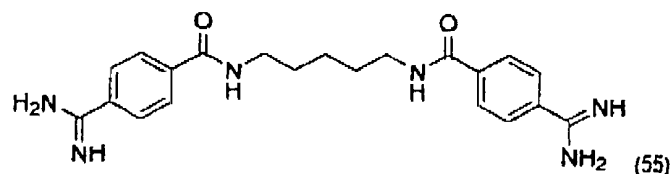
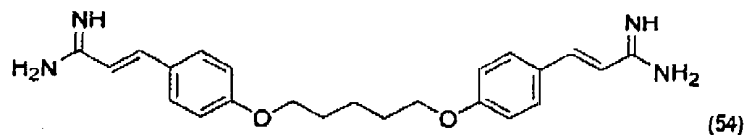
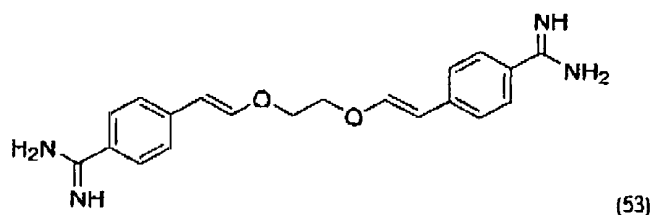
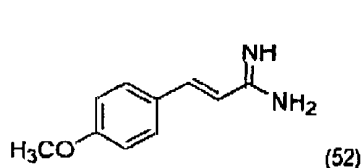
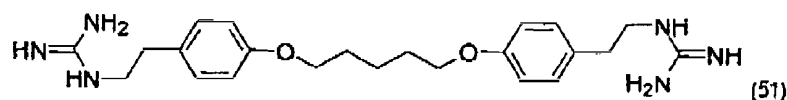
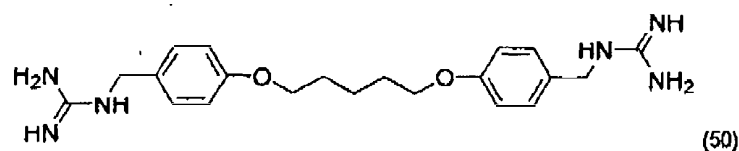


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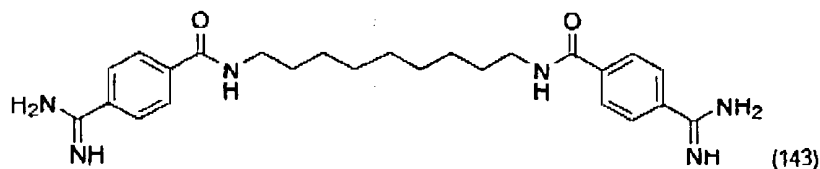
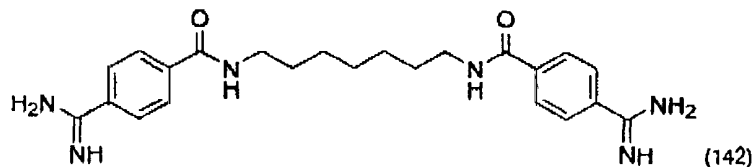
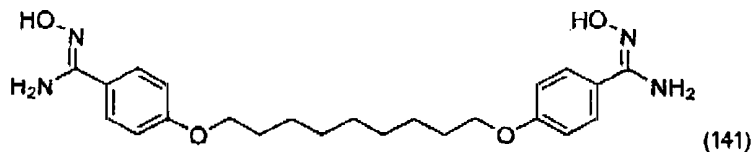
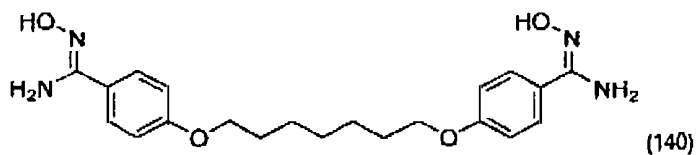
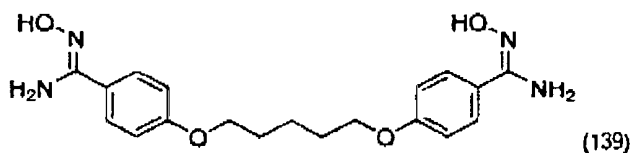
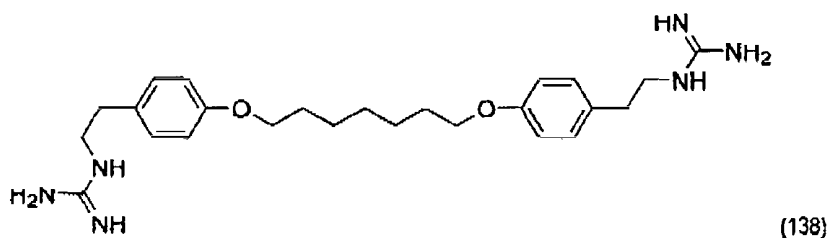
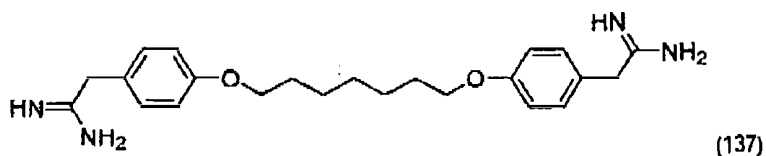
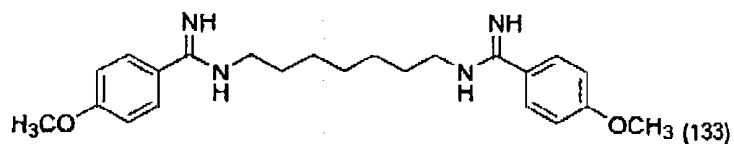
and pharmaceutically acceptable salts thereof.

51. (new) The method according to claim 1, wherein said compound is selected from the group consisting of



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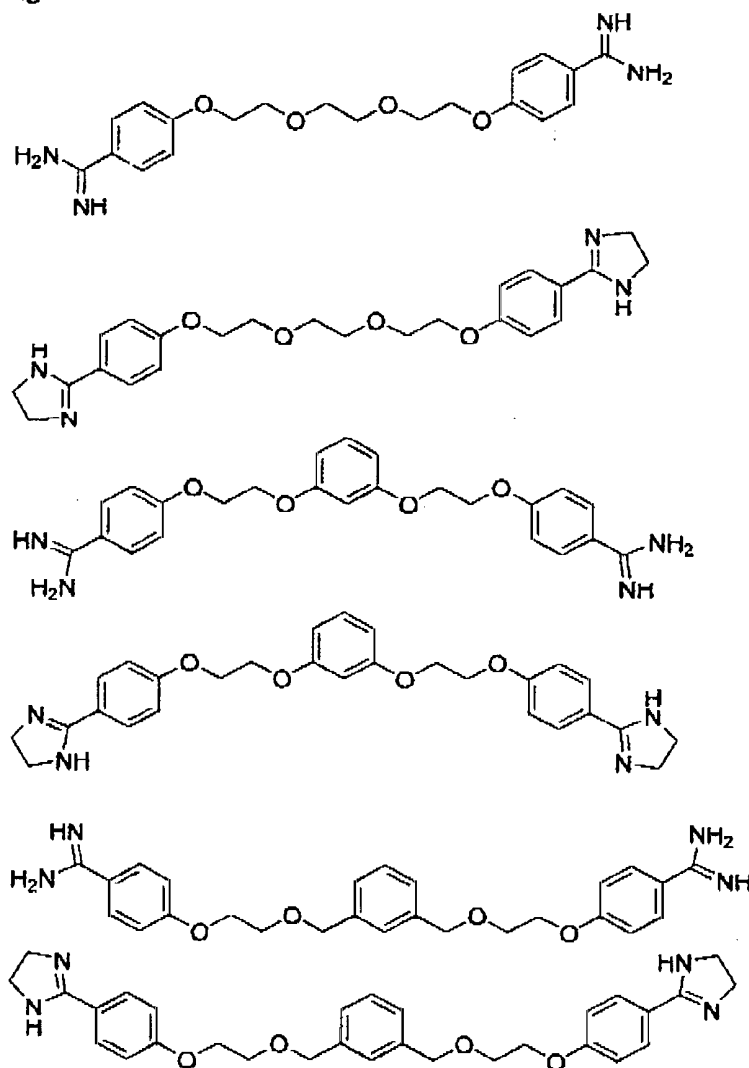


and pharmaceutically acceptable salts thereof.

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52. (new) The method according to claim 1, wherein said compound is selected from the group consisting of



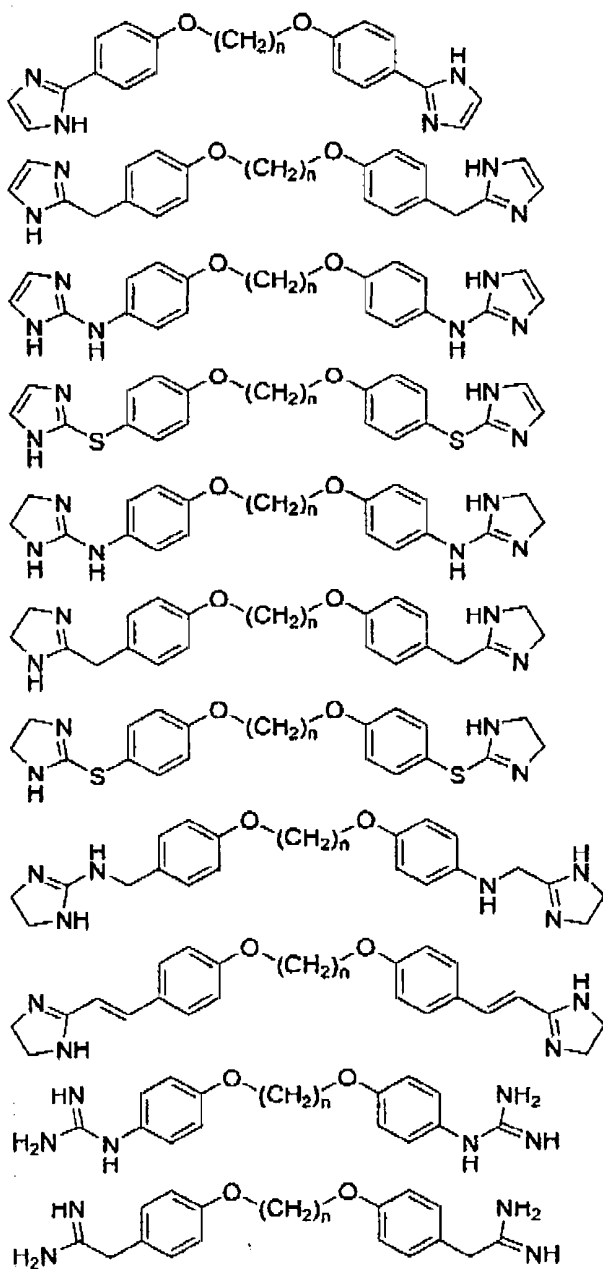
and pharmaceutically acceptable salts thereof.



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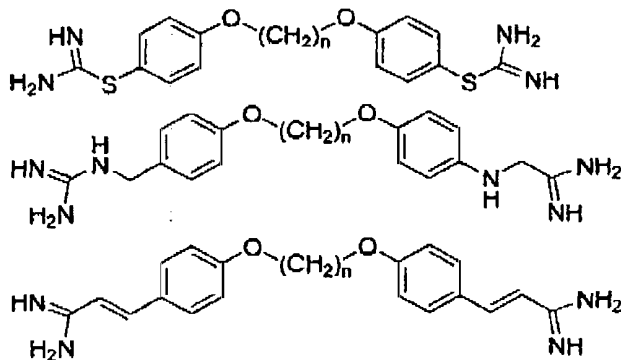
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53. (new) The method according to claim 1, wherein said compound is selected from the group consisting of



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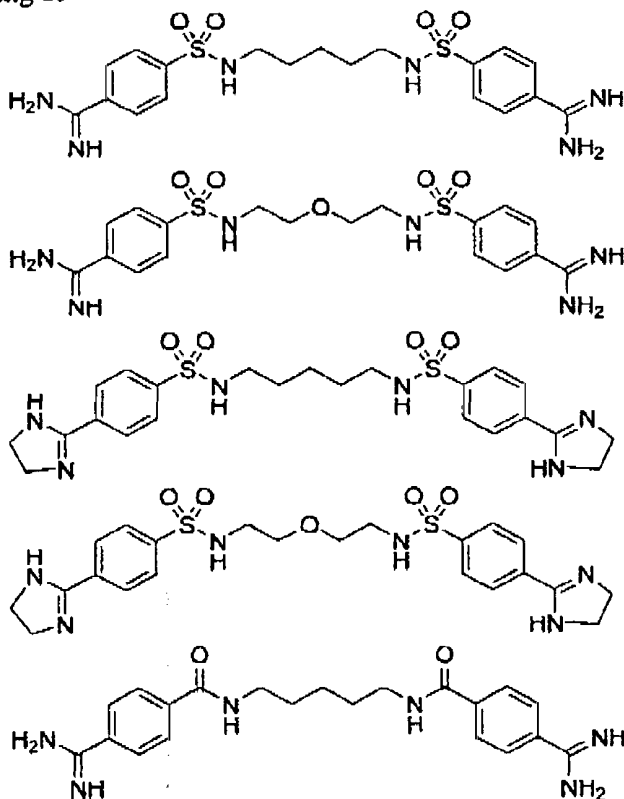
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wherein  $n$  is an integer from 1 to 12,

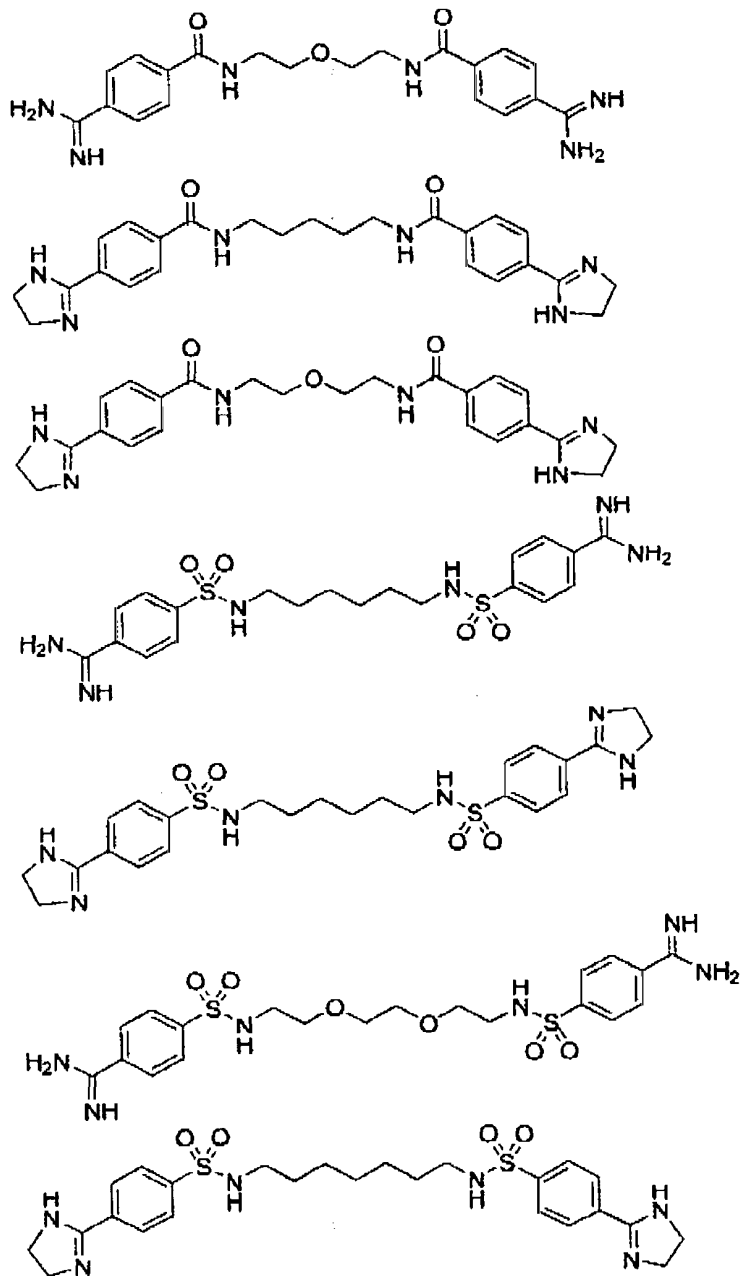
and pharmaceutically acceptable salts thereof.

54. (new) The method according to claim 1, wherein said compound is selected from the group consisting of



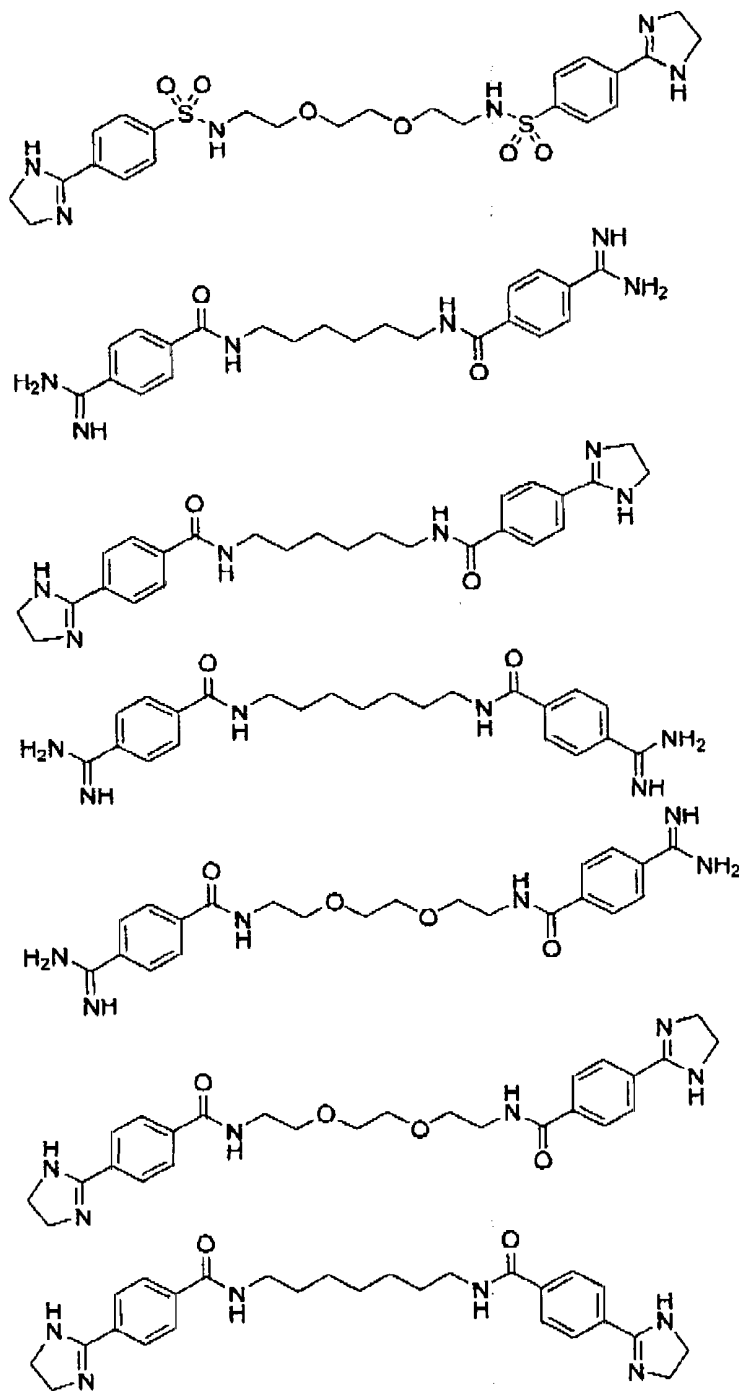
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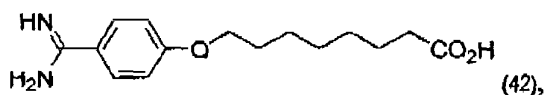


and pharmaceutically acceptable salts thereof.

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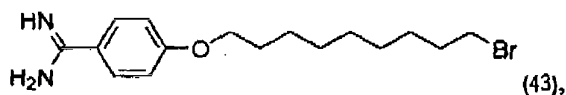
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55. (new) The method according to claim 1, wherein said compound is used therapeutically or prophylactically to treat a human in need thereof.
56. (new) The method according to claim 5, wherein said compound reduces or inhibits amyloid fibril formation or deposition, neurodegeneration, or cellular toxicity.
57. (new) A chemical compound having the following structure:



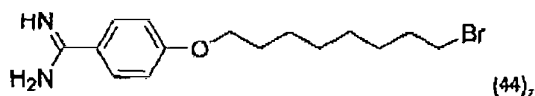
and pharmaceutically acceptable salts thereof.

58. (new) A chemical compound having the following structure:



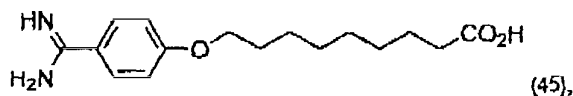
and pharmaceutically acceptable salts thereof.

59. (new) A chemical compound having the following structure:



and pharmaceutically acceptable salts thereof.

60. (new) A chemical compound having the following structure:



and pharmaceutically acceptable salts thereof.

61. (new) A pharmaceutical composition for treating or preventing an amyloid-related disease comprising a therapeutically effective amount of a chemical compound according to claim 44.